

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 0000055117	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2004/013555	International filing date (day/month/year) 30/11/2004	(Earliest) Priority Date (day/month/year) 02/12/2003
Applicant BASF AKTIENGESELLSCHAFT		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2004/013555

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. type of material
 - ☒ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☒ in written format
 - ☒ in computer readable form
 - c. time of filing/furnishing
 - ☒ contained in the international application as filed
 - ☒ filed together with the international application in computer readable form
 - ☐ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/013555

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12Q1/37 C07K14/415 G01N33/573 G01N33/569

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q C07K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBL, PAJ, WPI Data, EMBASE, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE EMBL 'Online! XP002279219 retrieved from EBI Database accession no. AB022327 sequence alignment abstract -& DATABASE UNIPROT 'Online! XP002281264 retrieved from EBI Database accession no. Q9XJ36 abstract -& NAKABAYASHI KAZUMI ET AL: "Identification of clp genes expressed in senescing Arabidopsis leaves" PLANT AND CELL PHYSIOLOGY, vol. 40, no. 5, May 1999 (1999-05), pages 504-514, XP009030466 ISSN: 0032-0781</p>	3-9, 19, 20

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

30 May 2005

Date of mailing of the international search report

23/06/2005

Name and mailing address of the ISA

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Authorized officer

Jacques, P

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE EMBL 'Online! XP002279220 retrieved from EBI Database accession no. AB022330 sequence alignment abstract -& DATABASE UNIPROT 'Online! XP002281265 retrieved from EBI Database accession no. Q9XJ35 abstract -& NAKABAYASHI KAZUMI ET AL: "Identification of clp genes expressed in senescing Arabidopsis leaves" PLANT AND CELL PHYSIOLOGY, vol. 40, no. 5, May 1999 (1999-05), pages 504-514, XP009030466</p>	3-9, 19, 20
X	<p>DATABASE EMBL 'Online! XP002279221 retrieved from EBI Database accession no. AK118523 sequence alignment abstract -& DATABASE UNIPROT 'Online! XP002281266 retrieved from EBI Database accession no. Q9FN42 abstract -& KOTANI ET AL.: "Structural analysis of Arabidopsis thaliana chromosome 5.II. Sequence features of the regions...." DNA RES., vol. 4, 1997, pages 291-300, XP008017317</p>	3-9, 19, 20
X	<p>WO 03/008440 A (PATTON DAVID ANDREW ;SYNGENTA PARTICIPATIONS AG (CH); ASHBY CARL S) 30 January 2003 (2003-01-30) table 5, gene 62837, sequences 81-82 and the whole document</p>	1, 2, 10-20
X	<p>HEINE, HAROLD W. AND BROOKER, ANNE C.: "The isomerization of aziridine derivatives. VI. The rearrangement of some 2-(1-Aziridiny)quinoxalines" JOURNAL OF ORGANIC CHEMISTRY, vol. 27, 1962, pages 2943-2944, XP002328507 p.2944, compound Ia.</p>	26

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE REGISTRY 'Online! 29 May 2001 (2001-05-29), XP002328508 retrieved from STN Database accession no. RN-338775-59-0 abstract -----	26
Y	HUANG C ET AL: "The Chlamydomonas chloroplast clpP gene contains translated large insertion sequences and is essential for cell growth." MOLECULAR & GENERAL GENETICS: MGG. GERMANY 25 JUL 1994, vol. 244, no. 2, 25 July 1994 (1994-07-25), pages 151-159, XP001181317 ISSN: 0026-8925 the whole document -----	1,2, 10-20
Y	SHIKANAI TOSHIHARU ET AL: "The chloroplast clpP gene, encoding a proteolytic subunit of ATP-dependent protease, is indispensable for chloroplast development in tobacco" PLANT AND CELL PHYSIOLOGY, vol. 42, no. 3, March 2001 (2001-03), pages 264-273, XP009030482 ISSN: 0032-0781 the whole document -----	1,2, 10-20
Y	CLARKE ADRIAN K ET AL: "Inactivation of the clpP1 gene for the proteolytic subunit of the ATP-dependent Clp protease in the cyanobacterium Synechococcus limits growth and light acclimation" PLANT MOLECULAR BIOLOGY, vol. 37, no. 5, July 1998 (1998-07), pages 791-801, XP009030486 ISSN: 0167-4412 the whole document -----	1,2, 10-20
A	ADAM ZACH ET AL: "Chloroplast and mitochondrial proteases in Arabidopsis. A proposed nomenclature" PLANT PHYSIOLOGY (ROCKVILLE), vol. 125, no. 4, April 2001 (2001-04), pages 1912-1918, XP002279218 ISSN: 0032-0889 p.1912, right-hand column, second paragraph and p. 1913, right-hand column, the "Clp proteases" section -----	1-20

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Information on patent family members

PCT/EP2004/013555

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